

AMENDMENT TO CLAIMS

1-7. (Cancelled)

8. (New) A switching power supply unit, comprising:

two or more switching power supplies each including:

two capacitors connected in series;

a transformer having a primary winding whose one end is connected to a connection point of the two capacitors;

two switching elements connected to the other end of the two capacitors and the other ends of the primary winding of the transformer; and

a rectifier for rectifying and smoothing an output of a secondary winding of the transformer, and

a common control circuit for controlling the plurality of switching elements,

wherein the two or more switching power supplies are connected to an input power supply so that the capacitors are connected in series, output voltages generated by the two or more switching power supplies are outputted to a common output terminal, and the control circuit switches the plurality of switching elements in the plurality of switching power supply units at regular intervals.

9. (New) The switching power supply unit according to claim 8, wherein the windings of the transformer are made of plate-shaped conductors.

10. (New) The switching power supply unit according to claim 8, wherein the windings of the transformer are formed of copper foil patterns stacked on a multilayer printed board.

11. (New) The switching power supply unit according to claim 9, wherein the copper foil patterns are formed one turn per layer of the multilayer printed board, and the copper foil patterns in the layers are interconnected by a connection unit.

12. (New) The switching power supply unit according to claim 8, wherein each of the secondary windings of the transformer is a coil of one turn or a plurality of coils each made of one turn connected in parallel.

13. (New) The switching power supply unit according to claim 12, wherein the connection unit is formed outside the copper foil patterns.

14. (New) An electronic device for supplying electric power to a semiconductor device by using the switching power supply unit according to any one of claims 8 to 13.